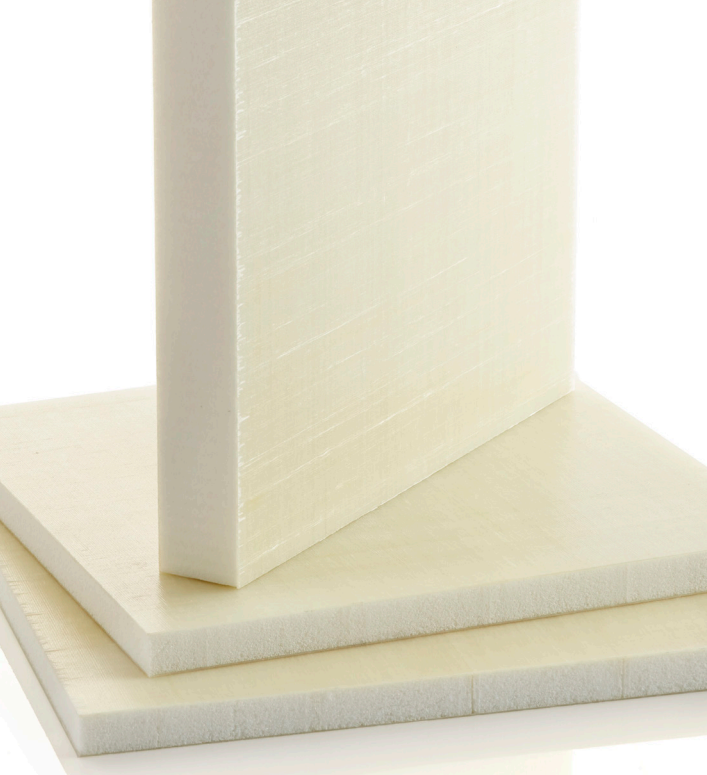


Hammerhead™ Composite Panel Construction Solutions





HAMMERHEAD™ AND HAMMERHEAD™ FR FLAME RETARDANT COMPOSITE SANDWICH PANELS are engineered building materials made using continuous glass fiber reinforced thermoplastic facesheets bonded to a lightweight polyethylene terephthalate (PET) foam core. Hammerhead FR panels meet ASTM E84 Class A requirements for flame spread and smoke density. Configurations are available for applications requiring compliance with NFPA 286 corner burn testing.

Built for High-Performance Construction

Built for structural durability and demanding environments, Hammerhead panels deliver excellent strength-to-weight ratio, weighing significantly less than wood, oriented strand board (OSB), or traditional wall assembly materials. The thermoplastic facesheets provide a tough, impact-resistant surface while remaining easy to cut, fasten, and install with standard tools.

| KEY CHARACTERISTICS | BENEFITS |
|---|--|
| Excellent Flame Performance | Hammerhead FR panel options meet strict commercial fire standards and maintain structural integrity even during flame exposure |
| Lightweight Structural Integrity | Weighs less than wood, drywall, OSB, or gypsum wall assemblies — easier to lift, move, and transport onsite |
| Exceptional Strength-to-Weight Ratio | Composite construction delivers strong structural performance while supporting higher payloads |
| Moisture, Ultraviolet (UV), Chemical, Corrosion & Rot Resistant | Withstands harsh environments and extends the lifespan of the structure |
| Tough & Impact-Resistant | Durable facesheets can provide long service life even in high traffic or demanding applications |
| Strong Adhesive Bonding | Surfaces are designed for reliable bonding to a variety of finishes and attachments |
| Large Format Panels | Provide improved aesthetics, seamless surfaces, and fewer joints compared to traditional assemblies |

TYPICAL PROPERTIES – THERMOPLASTIC PANELS

| DESCRIPTION | TEST METHOD | PROPERTIES | | UNIT | HAMMERHEAD PANEL | | | HAMMERHEAD FR PANEL |
|------------------------------|-------------|-------------------------------|-------------|--------------|------------------|----------|----------|---------------------|
| Physical Properties | | Core Density | | [kg/m³] | 80 | 100 | 130 | 100 |
| | | | | [lb/ft³] | 5 | 6.2 | 8.1 | 6.2 |
| | | Panel Thickness | | [in] | 1 | 1 | 1 | 1 |
| | | Areal Weight | | [lb/sqft] | 1.05 | 1.15 | 1.30 | 1.55 |
| | | Typical Thickness | [AVG] | [in] | 1.02 | 1.02 | 1.02 | 1.05 |
| | | | [Tolerance] | [in] | +/- 0.02 | +/- 0.02 | +/- 0.02 | +/- 0.02 |
| 4-Point Flexure ¹ | ASTM D7249 | 0° Modulus | [AVG] | [ksi] | 330 | 340 | 360 | 320 |
| | | 90° Modulus | [AVG] | | 330 | 340 | 360 | 300 |
| | | 0° Flexural Rigidity (EI/in) | [AVG] | [in*lb^2/in] | 29,000 | 30,000 | 31,000 | 29,000 |
| | | 90° Flexural Rigidity (EI/in) | [AVG] | [in*lb^2/in] | 29,000 | 30,000 | 31,000 | 29,000 |
| Compression ² | ASTM C365 | Modulus | [AVG] | [psi] | 8,200 | 11,800 | 14,300 | 10,500 |
| | | Yield (20% mod drop) | [AVG] | [psi] | 180 | 240 | 330 | 260 |
| Thermal Conductivity | ASTM C518 | R-Value | [AVG] | [/in] | 4.5 | 4.2 | 3.8 | 3.8 |

¹ Flexural rigidity values vary based on panel size and raw material orientation.

² Compression test completed with 3" Disc Test.

Results above are typical values.

FASTENER RETENTION



GRK Fasteners™ and E-Z Ancor® are trademarks of Illinois Tool Works Inc.

| PROPERTIES | UNIT | HAMMERHEAD PANEL | | | HAMMERHEAD FR PANEL |
|----------------------------------|------------------|------------------|-----|-----|---------------------|
| Core Density | kg/m³ | 80 | 100 | 130 | 100 |
| Panel Thickness | Inches | 1 | 1 | 1 | 1 |
| #6 Drywall | Partial Pull-Out | 110 | 130 | 140 | 120 |
| | Through Pull-Out | 210 | 240 | 250 | 230 |
| #8 Drywall | Partial Pull-Out | 150 | 160 | 190 | 170 |
| | Through Pull-Out | 270 | 280 | 290 | 310 |
| #12 Self-Tapping | Partial Pull-Out | 100 | 130 | 140 | 130 |
| | Through Pull-Out | 210 | 220 | 260 | 230 |
| E-Z Ancor® Drywall & Stud #25316 | Partial Pull-Out | 320 | 330 | 340 | 310 |
| 5/16" GRK Fasteners™ | Partial Pull-Out | 180 | 190 | 200 | 190 |
| | Through Pull-Out | 340 | 360 | 400 | 350 |

*Tested according to ASTM D1037 Fastner Retention standards.

INSTALLATION INSTRUCTIONS



CUTTING & DRILLING

RECOMMENDED BLADE

Industrial fine cut-off saw blade, 10" x 80-94 teeth 38° alternate top bevel (ATB) grind with 5/8" bore, polytetrafluoroethylene (PTFE) coating, such as DIABLO® 10" x 80-teeth ultra finish saw blade for wood item# D1080X

RECOMMENDED ROUTER BITS

Solid carbide single flute bit of O flute geometry, various diameters

DIABLO® is a trademark of Freud America, Inc.





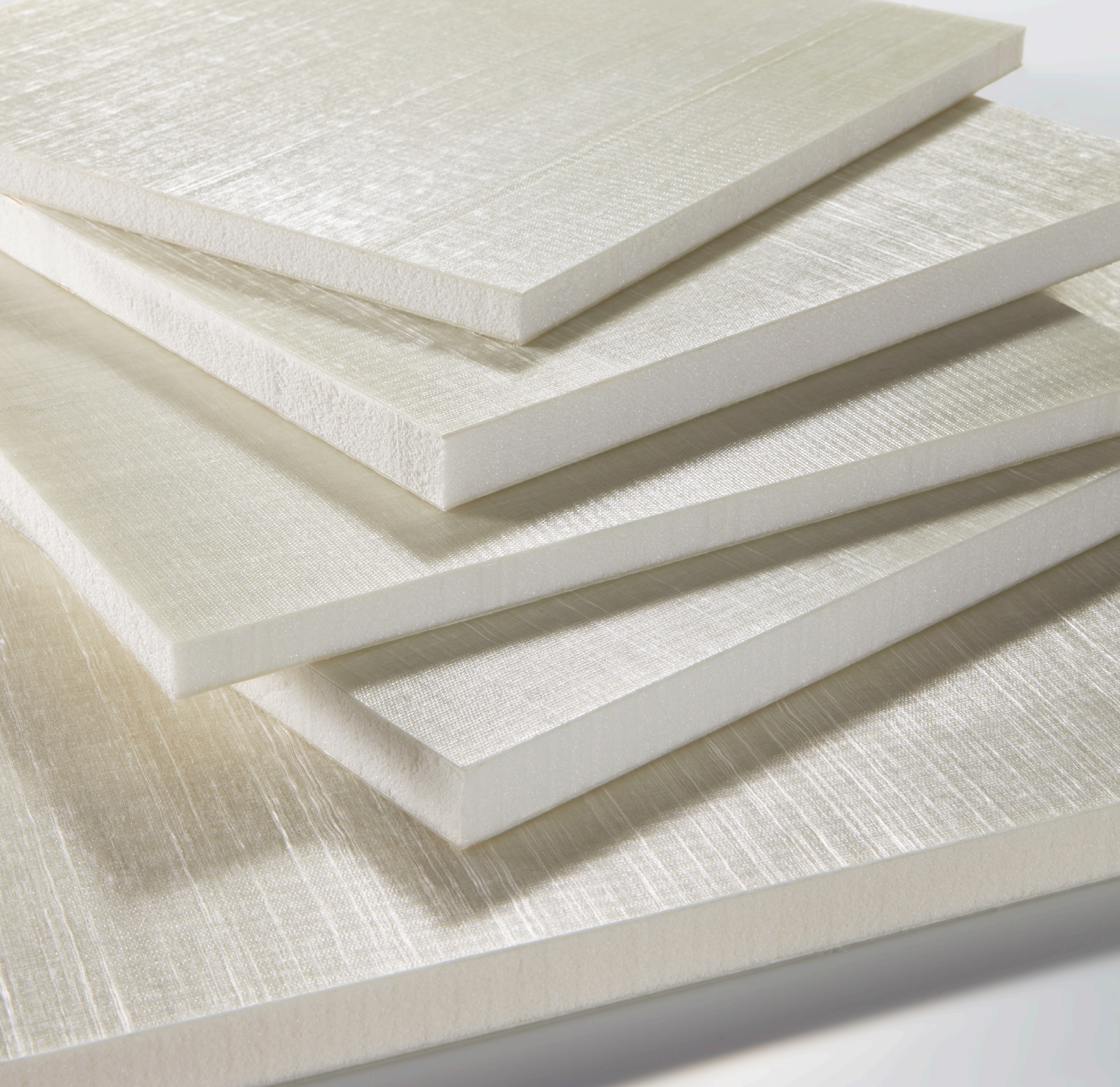
PANEL SHAPING

Hammerhead panels are manufactured using thermoplastic materials, which allows them to be post-processed to create continuous bends, contours, and formed shapes. For guidance on the most effective methods to utilize these capabilities, please contact Avient.



FINISHES

Hammerhead panels support a wide range of surface finishes including primer, paint, and various paint-ready films and coatings. This allows broad flexibility for both aesthetic customization and added protection. Avient can also supply panels with raw film finishes that match many different colored films and vinyl options such as wallpapers and flooring. These finishes can be applied directly during the manufacturing process.



**To learn more about Hammerhead Panels, call+1.844.4AVIENT
or visit us at avient.com/hammerhead-fr.**



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